DOCKETED	
Docket Number:	21-TRAN-04
Project Title:	Energy Infrastructure Incentives for Zero-Emission Commercial Vehicles (EnergIIZE Commercial Vehicles)
TN #:	259201
Document Title:	EnergIIZE Utilities and Me - SCE Funding Workshop
Description:	EnergIIZE Commercial Vehicles Project Utilities and Me - SCE Funding Workshop slide deck from 6/26/2024. A recording of the workshop is viewable at the link below. https://vimeo.com/1008448723
Filer:	CALSTART
Organization:	CALSTART
Submitter Role:	Other Interested Person
Submission Date:	9/17/2024 4:10:32 PM
Docketed Date:	9/17/2024





Utilities & Me: MDHD EV Infrastructure Installation and Funding

June 26, 2024 1pm PT

Agenda

Topic	Speaker
Welcome!	Lauren Fleming, EnerglIZE
What Does it Take to Install EV Charging Infrastructure?	John Nelson, Sr. Project Manager, Southern California Edison
SCE's Transportation Electrification Pathways	Ramiro Lepe, Sr. Advisor, Southern California Edison
EnergIIZE Available Funding	Lauren Fleming & Aidan Anthony, EnergliZE
Question Panel and Q&A	All Presenters

Zoom Logistics

Webinar URL: https://calstart-

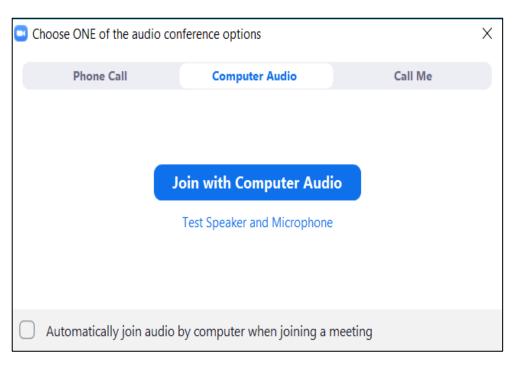
org.zoom.us/webinar/register/WN_5G7Bn_8VS6Ggd8P88DIV

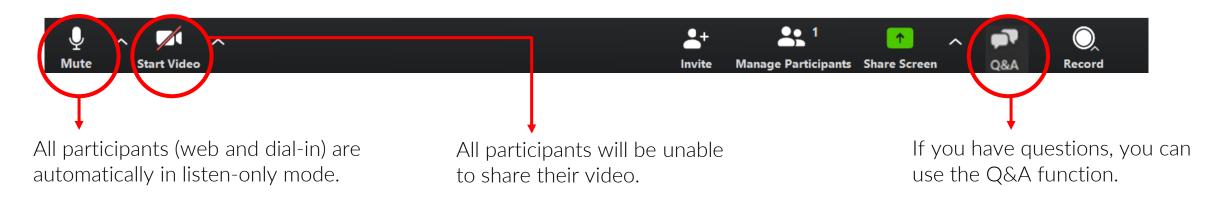
7Q

Webinar ID: 867 4228 2594

Mobile: US: +1 719 359 4580 or +1 253 215 8782

If you dial-in from a phone, use the meeting ID and passcode from invite







What Does It Take To Install EV Charging Infrastructure?

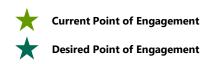
-John Nelson, Sr Project Manager, TE Project Management





What does it take to install charging infrastructure?

Interconnection Process (Specific Site, Specific Project)



Understanding the process flow of installing electric chargers and the work that SCE is responsible for can ensure a smooth partnership from start to finish

Annual Planning Process



Decision to Electrify

Your business knows it will electrify its fleet but may or may not have a detailed plan yet.

Partner with TEAS to develop a plan EV Readiness Studies

Customer **Planning**

You understand what your fleet operations will look like, including type and quantity of vehicles, and where chargers will be needed.

Interconnection Application

Your official application for interconnection for a specific site and project is submitted.

Preliminary Design*

information in your application, SCE will create a preliminary design up to the back for your

Based on the meter and send it approval.

Finalize Design*

Your official application for interconnection for a specific site and project is submitted.

Upgrade Power Infrastructure*

You have complete plans for your side of the meter, prepared the site for installation and procured the chargers (and vehicles!) for your fleet.

Review Readiness

Once your field conditions are met, SCE can obtain permits and schedule the work orders.

Crew Starts Work*

All cables and equipment up to the meter are installed by SCE and connected to the grid.

Project Energized

Service begins! Reach out to SCE for service support and maintenance.

Load Capacity Study

An optional, customer-funded study to help you understand the scope of work required and mitigate risks to your plan.

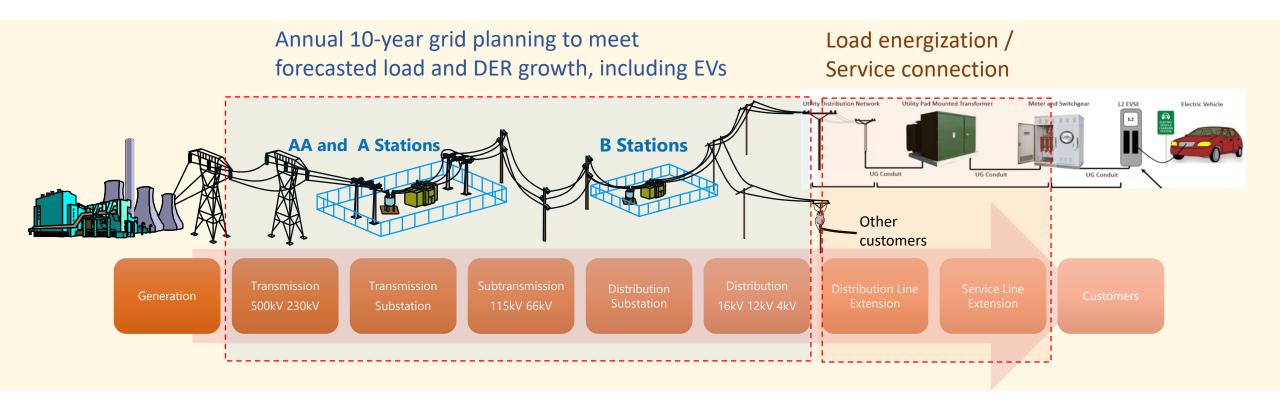
Load Capacity Study

A required study, completed at no additional cost to you, that confirms the work required and reserves your load.

The earlier SCE is notified, the more we can support your planning and prepare for your project!

*If you choose to utilize Charge Ready Transport program, SCE will support the design and installation on both sides of the meter. For Rule 29 installations, you are responsible for the design and construction on your side of the meter

Overview of Utility Grid Planning Activities



EV Infrastructure Project Site Overview – Essentials



Charger Selection

Make / Model / kW / Quantity

Fleet Operations

- Type and Quantity of EVs
- Estimated Arrival Dates
- Establishing Routes / Charging Windows

Proposed Site Map

 Spacing, Throughput, Overhead Obstructions, Existing Easements

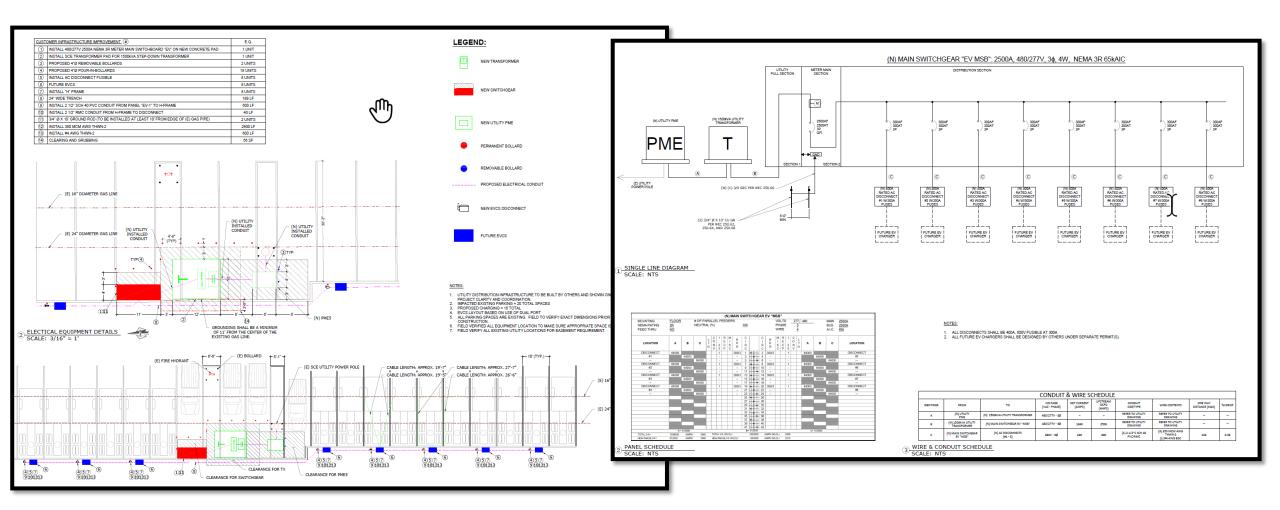
Review of Utility Easements & Agreements

No Red Lines

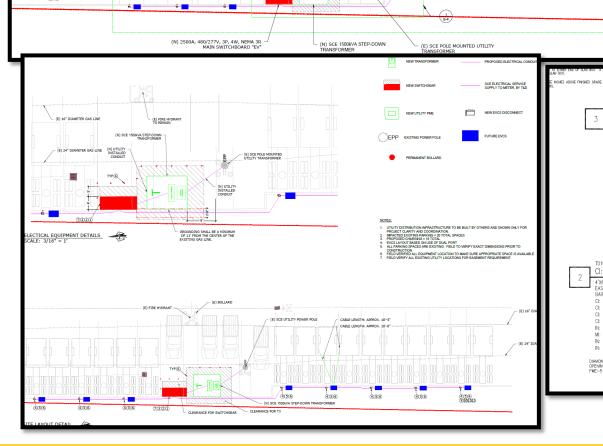
Environmental Considerations

SCE Does NOT Pay for Remediation

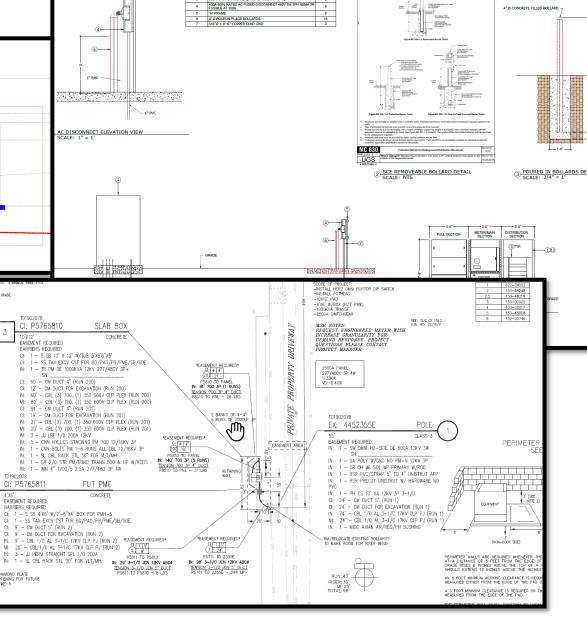
EV Infrastructure Project Site Overview - Conceptual Design Phase



Final Engineered Design Phase (i) WATER LINE (ii) SANTTANY SEWER LINE (iii) SANTTANY SEWER LINE (iii) SANTTANY SEWER LINE (iii) CAS LINE AC DISCONNECT ELEVATION VIEW (iii) CAS LINE AC DISCONNECT ELEVATION VIEW (iii) CAS LINE



(E) STORM DRAIN



EV Infrastructure Project Site Overview - Construction Phase





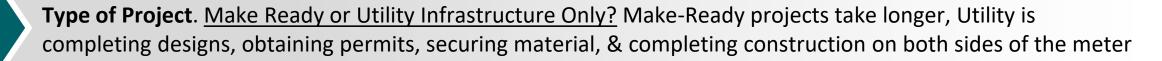


EV Infrastructure Project Site Overview - Construction Complete





Every EV Charging Infrastructure Project is a MAJOR Construction Endeavor Each project is unique, there are 6 high level factors that influence how long completing an EV Infrastructure project will take:



Site Characteristics. Does electric service already exist, or will site require distribution or service line extension? Environmental Remediation, Existing UG Utilities (natural gas, gasoline, etc.)

Capacity. Does it currently exist, or will added capacity be needed to serve a project? Projects may require a lot of capacity. See us as a partner! We may need to upgrade substation or reallocate circuit load

Permits & Clearances. Utilities have to be given permission to complete the construction work required for EV charging from the AHJ (Cities, Counties, State or Federal Entity). Permit approval times are taking longer

Materials & Equipment. Industry has seen a shortage of key materials and equipment needed to complete EV Charging Infrastructure projects to include Switchgear, some Transformers & smaller materials

Customer Engagement. Lead times in receiving customer applications, submitting designs, providing clearances, signing agreements, approving preliminary and final designs, etc. Customer requested changes

Engage With SCE Early & Often For Your Load Energization Project

In Addition to Sharing the Long-Term Electrification Plan, Customers Should Contact SCE as Early as Possible for Your Load Energization Project!

While <u>Each Location Has Different Levels of Capacity and Complexity</u>, In General, SCE Strongly Suggest That Applicant Should Inform SCE As Follows:

- Any Size Project: No lesser then 2 years
- **3-10 MW Project**: No lesser then <u>3 years</u>
- 10-15 MW Project: No lesser then 5 years

*Timing depends on the capacity & complexity of the localized distribution grid. The times suggested above are for guidance only and may be substantially longer if project with licensing requirements are triggered

System Upgrades Take Time! •

- 2 18 months+ for simple upgrades (e.g. upgrade to existing circuits)
- Approximately....
- 3+ years for moderate upgrades (e.g., new circuits)
- <u>6+ years for major upgrades</u> (e.g., new substations)





Southern California Edison's Transportation Electrification Pathways

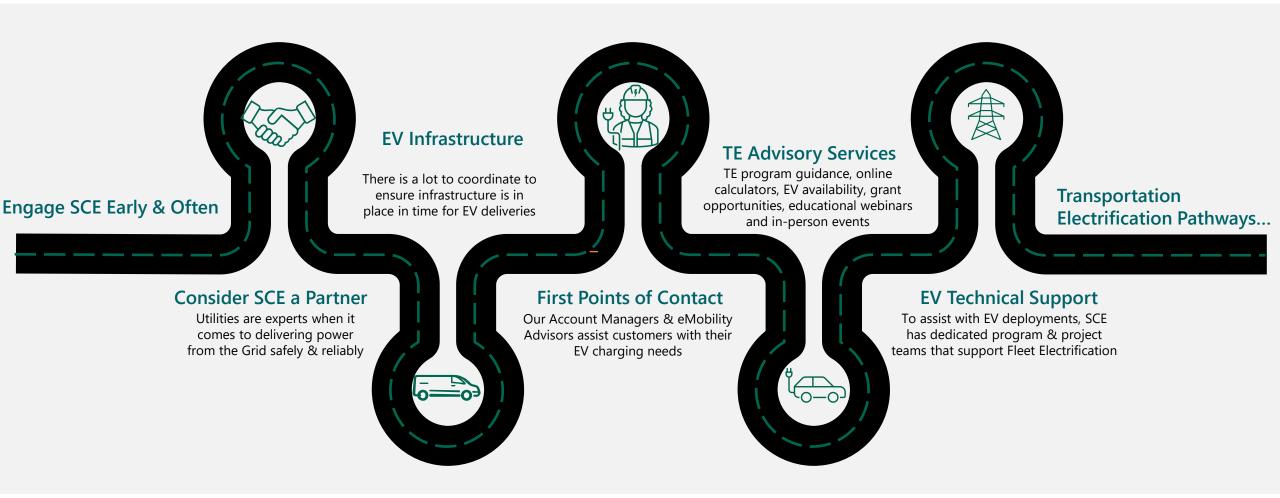
-Ramiro Lepe, Sr Advisor, Charge Ready Transport





Working With SCE For Your Power Needs

Requesting or upgrading power can seem like a long and complicated process, but by planning ahead, you don't have to do it alone



SCE Supports Every Stage of Your Electrification Journey

Programs and self-serve resources are available to help you understand the impact of electrification, define requirements, and access funding for your fleet transition



START HERE:

• Power Service Request

SHARE YOUR PLANS:

- EV Acquisition Plan Survey
- SCE Forecasting Process
- SCE System Planning Process

PLANNING:

- SCE Distribution Resources
 Plan External Portal (DRPEP)
- Engineering Analysis Reports
- Electric Fleet Fuel Calculator

TE ADVISORY SERVICES:

- EV Readiness Studies
- Grant Writing Assistance
- In Person Events & Webinars

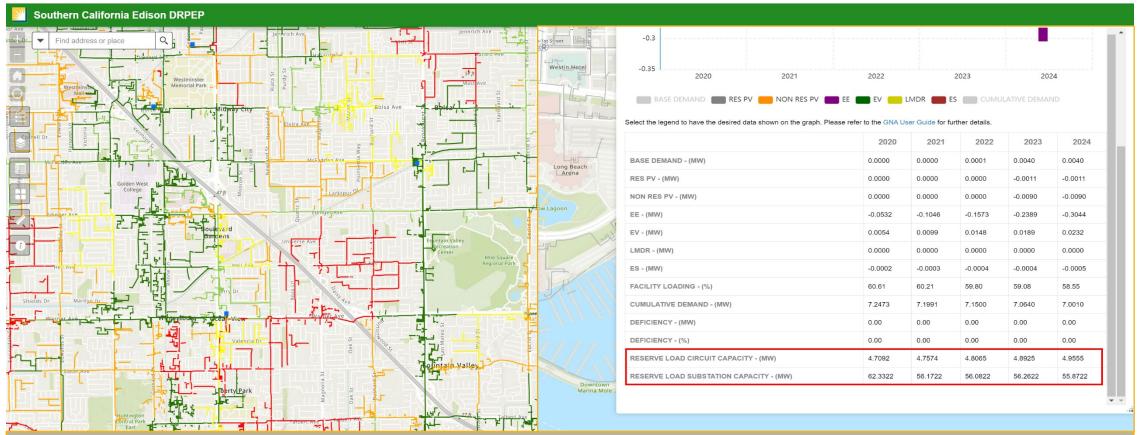
EV INFRASTRUCTURE:

- Charge Ready Transport
- EV Infrastructure (Rule 29)
- <u>SCE Approved Product List</u>

* Coming Soon!



Distribution Resource Plan External Portal (DRPEP)



- SCE's <u>Distribution Resource Plan External Portal</u> provides information to support streamlining the interconnection process, enabling customer use of clean energy technologies, and achieving California's clean energy goals
- DRPEP is home to SCE's Grid Needs Assessment (GNA) and other interconnection projects.
- Reserve Load Circuit Capacity and Reserve Load Substation Capacity

Transportation Electrification Advisory Services

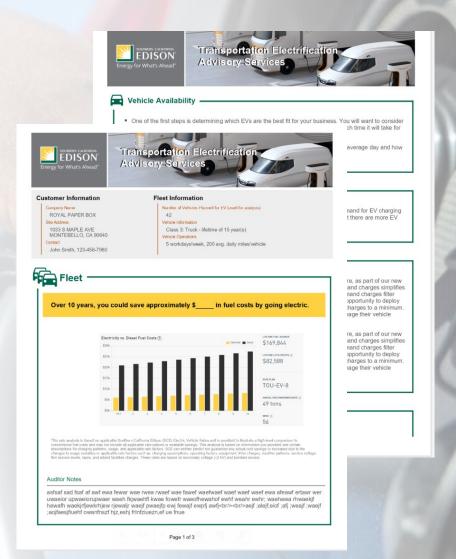
TE Advisory Services is available to support customers early in the electrification planning phase.

EV Readiness Studies (No Cost Project Site Study)

- Helps multifamily property owners, tribal communities, businesses and medium- and heavy-duty fleet owners determine the feasibility of their specific electrification project. Customers will receive the following:
 - Consultation call with a TE Advisor
 - High-level study of their site

Grant Writing Assistance (No Cost Service)

- Helps medium- and heavy-duty fleet owners apply for state and local competitive funding opportunities to reduce the cost of purchasing EVs.
 - VW Mitigation



Introducing *Charge Ready Transport*. Electric Infrastructure for EV Truck, Bus & Off-Road Fleets

Charge Ready Transport is SCE's program to help meet California GHG goals while providing clean air to local communities.

We build EV charging infrastructure for SCE customers deploying EV trucks, buses, and off-road equipment.

We collaborate with fleets to design infrastructure to meet your needs while managing potential grid impacts.

Four Elements of Charge Ready Transport

Provides low- to no-cost distribution electrical infrastructure for fleet customers on both the utility- and customer-side of the meter. Customer purchases and installs charging equipment. Customer Built Infrastructure option is available as well.

Charger hardware rebates up to 50% for eligible customers

Commercial Time-Of-Use rates designed for EV fleets

EV Advisory Services for fleet evaluation







CR Transport Fast Facts

- Seven-year program, launched in 2019
- \$342 million budget
- Minimum 500 sites and 8,490 MDHD EVs deployed
- At least 15% of the Infrastructure budget must go to transit agencies
- At least 40% of the Infrastructure budget must go to Disadvantaged Communities (DACs)



Charge Ready supports a variety of Medium & Heavy-Duty

Electric Vehicles

On-road vehicles

Eligible Classes:

- **Medium-Duty vehicles**
- **Heavy-Duty vehicles**
- **School Buses**
- Transit Buses
- **Truck Stop Infrastructure**

Vehicles must have GVWR (max loaded weight) 6,000 lbs. and above (class 2-8)

Off-road vehicles

Eligible Classes:

- Yard trucks
- **Forklifts**
- **Transportation Refrigeration**
- Airport ground support equipment (GSE)







No specific weight minimum

New-Technology Vehicles:

Contact us for eligibility about new vehicle types coming to market, such as cargo handling equipment, agricultural vehicles, or construction vehicles.

















Eligible Chargers are listed on SCE's Approved Product List

AC Level 2

- Up to 80 amp (19.2 kW).
- Standard J-1772 connector.



DC Standalone

- Up to 180 kW.
- CCS-1, CCS-2, CHAdeMO connectors.



DC Power Cabinet

- Modular cabinet with one or more dispensers.
- Up to 350kW.
- CCS-1, CCS-2, CHAdeMO connectors.



Off-road TRU & Forklift

- TRU: 4-pin and 6-pin, up to 32 amp, UL listed.
- Forklift: variety of chargers for different forklift models, UL listed.



Approved product list available at http://www.sce.com/apl. New models are added regularly. Check for the newest availability list.

Many fleets qualify for charging hardware rebates up to 50%

Do you qualify for a charger equipment rebate?

Three customer classes qualify for the charger equipment rebate:

- 1. Transit agencies
- 2. School District
- 3. Project sites in Disadvantaged Communities, except for businesses on the Fortune 1000 list.

Map of Disadvantaged Communities

Charger Info

Rebates cover 50% of equipment cost, up to a cap by power band.

Chargers must meet AC or DC charging standards for on-road vehicles

Equipment must be listed on SCE's Approved Product List (APL).

For AC chargers and DC standalone chargers, there is one rebate per charger, regardless of the number of ports / connectors.

For DC modular power cabinet chargers, there is one rebate per power cabinet, regardless of the number of dispensers.

No rebates available for forklift, TRU, and other off-road chargers.

up to the rebate cap		
Power Band Rebate Cap		
0 kW - 19.2 kW	\$1,700	
19.3 kW – 49.9 kW	\$7,400	
50 kW – 149.9 kW	\$22,000	

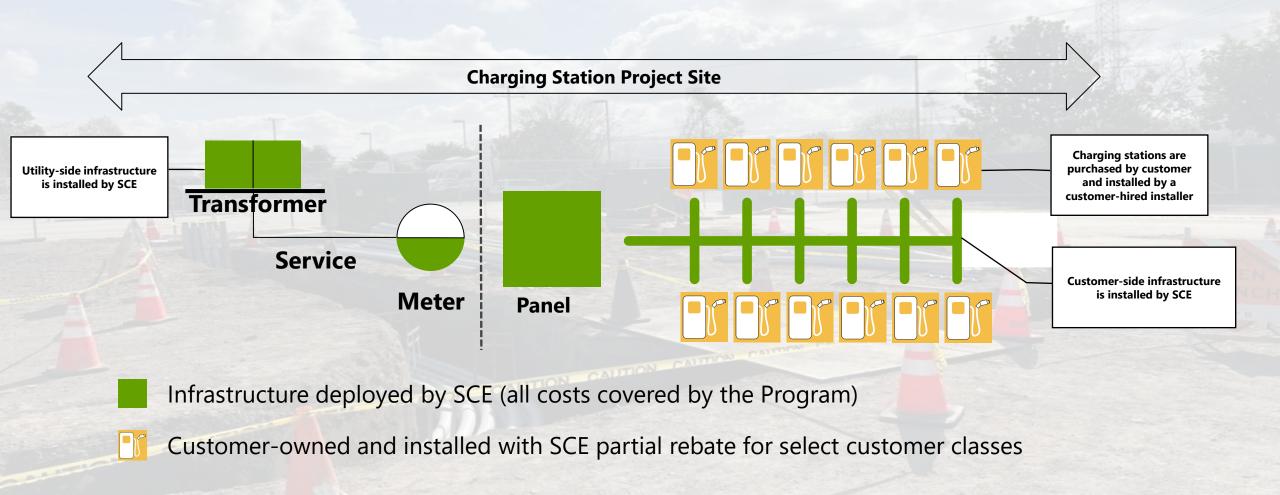
Rebate covers 50% of the EVSE cost

Rebate table is current as of March 2021. Rebate structure may be updated in the future. View the current rebate structure at the Approved Product List (APL) website.

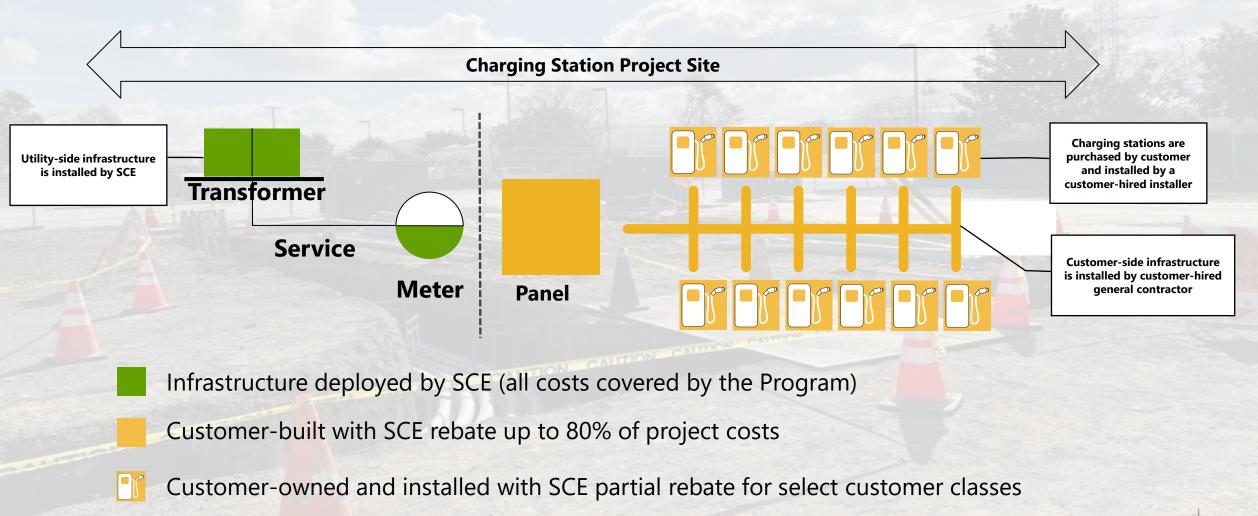
150+ kW

\$37,000

CR Transport Project: SCE-Built Infrastructure



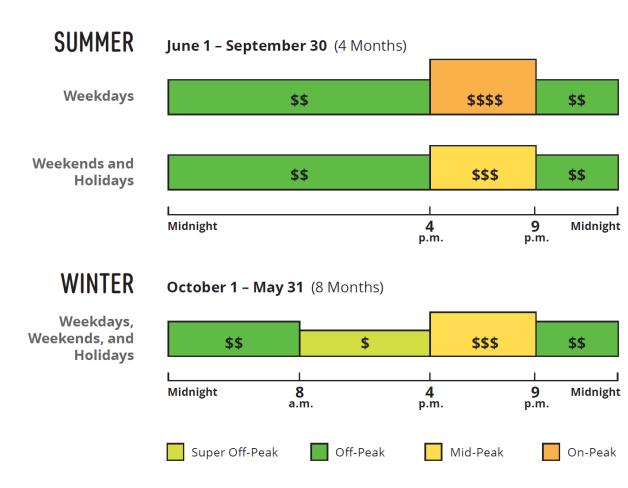
CRT Project: Customer-Built Infrastructure



SCE's New EV Rates & Demand Charge Holidays

Highlights of new EV rates

- **TOU-EV-7:** No demand charges from 2019-February 2024. Demand phases back in from 2024-2029.
- **TOU-EV-8 & 9:** No demand charges 2019 through 2025. Demand phases back in from 2026-2031.
- Save money by avoiding the peak hours of 4pm-9pm.
- New Super Off-Peak period with lowest pricing during 8am-4pm from October – May.
- You can estimate your electricity costs using SCE's Fleet Fuel Calculator, <u>fleetfuelcalculator.sce.com</u>.





TOU-EV-7 20kW or less

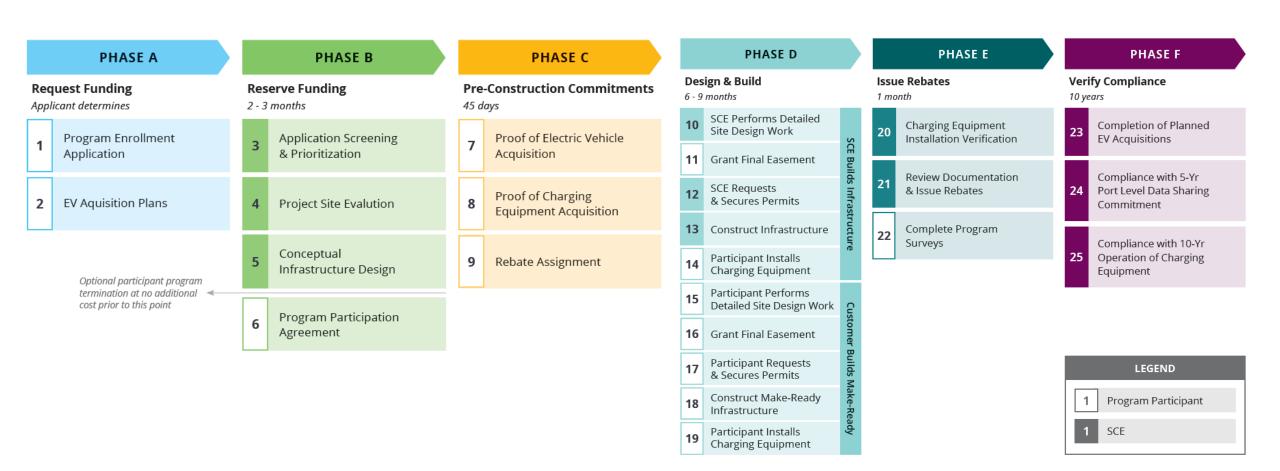


TOU-EV-8 above 20 kW & up to 500kW



TOU-EV-9 above 500 kW

Charge Ready Transport Program Activity Flow



Charge Ready Transport - Application Requirements



EV Acquisition Plan

- Type and Quantity of EVs
- Estimated Arrival Dates
- Establishing Routes / Charging Windows

Charger Selection

Make / Model / kW / Quantity / APL

Proposed Site Map

 Spacing, Throughput, Overhead Obstructions, Existing Easements

Review of Utility Easements & Agreements

No Red Lines

Environmental Considerations

Complete Environmental Questionnaire Form

Engage with SCE Today to Inform Annual Grid Capacity Planning



SCE doesn't know where your vehicles will be parked and charging when you electrify

To ensure SCE's grid is ready with the capacity to meet your needs

Engage with SCE Today to share your fleet data (i.e., location, # vehicles)

Or, your short and long-term electrification, if available



Your information will be used to inform the development of SCE's annual 10-year grid plan!

Without your electrification plans, SCE may be delayed in incorporating your specific needs into SCE's grid planning process

which can in turn lead to delays in your future electrification needs.



Please help us help you by sharing your fleet data, and if available, your short and longterm electrification plans!

Questions?

Email: TEP@SCE.com

SHARE YOUR FLEET DATA & PLANS WITH US!



It is critical to integrate your fleet data and electrification plans with SCE's grid plans!

- Ensure there is grid capacity in the areas where you plan to electrify
- Prevent potential service delays due to the need for SCE to complete grid capacity expansion, beyond your site work and distribution line & service line extension

For More Information & Support

Ramiro Lepe

(626) 842-7129

Ramiro.Lepe@SCE.com

www.sce.com/crt

For Rule 15, 16, 29: <u>TEPMCommercialEV@sce.com</u>

For Charge Ready Transport: chargereadytransport@sce.com

Transportation Electrification Advisory Services: www.sce.com/TEAS







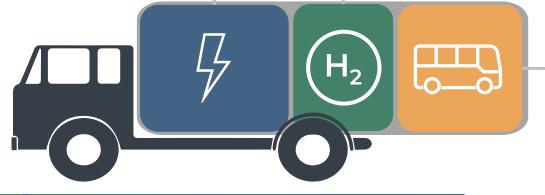
Energy Infrastructure Incentives for Zero-Emission Commercial Vehicles

Overview of EnergIIZE

Energy Infrastructure Incentives for Zero-Emission Commercial Vehicles

Provides incentives for zero-emission vehicle (ZEV)
infrastructure equipment for medium-duty and heavy-duty
(MDHD) battery-electric and hydrogen fuel cell vehicles
operated and domiciled in California.

Funding is released in distinct lanes, each representing a key area of the commercial ZEV landscape. Vehicles must be Class 2b-8, off-road applications are considered on a case-by-case basis.



Funded by the California Energy Commission's (CEC)

Clean Transportation Program.





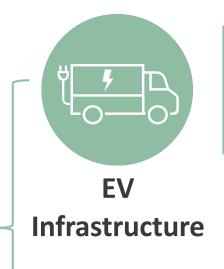


EnergIIZE Eligible Costs

Eligible costs are from customer side make-ready, where it is not currently offered by utilities, to the vehicle plug/nozzle.

EnergIIZE funds can be stacked (used in conjunction) with utility make-ready programs.







- Eligible EVSE listed on Approved Product List
 - Level 2 Chargers
 - Direct Current Fast-Charging (DCFC)
 - V2G and Wireless Charging
- Networking
- Software
- Maintenance
- Warranty
- Switchgear
- Electrical Panel Upgrades
- Meters
- Stub-outs



EnergIIZE Standard Funding Lanes

Closed



EV Fast Track

Applicants are ready to go and may already have prior experience applying for commercial MDHD EV funding.

Closed



Open 7/16/24



Open Oct. 2024



Hydrogen

Applicants intend to develop a hydrogen infrastructure project for commercial MDHD fuel cell vehicles.

EV Jump Start

Applicants will need to meet specific eligibility criteria and will be allotted more time to submit required documents.

EV Public Charging

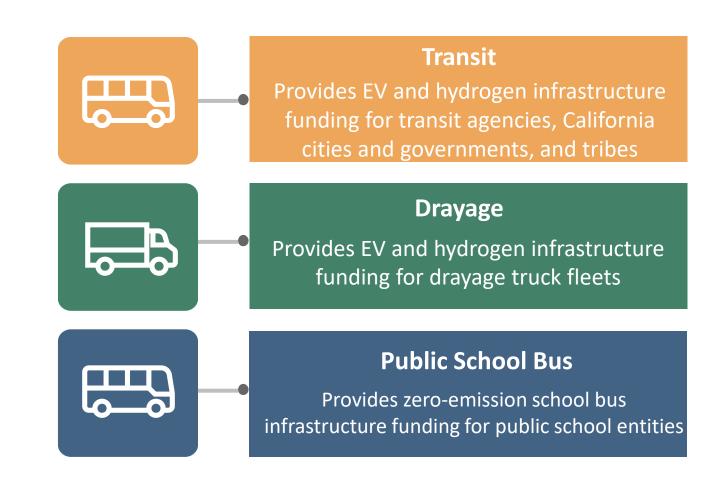
Applicants intend to develop publicly available or shared charging stations for commercial MDHD EVs.



EnergIIZE Set-Aside Funding Lanes

The Set-Aside lanes pair EnergIIZE infrastructure funding with vehicle funding through the <u>Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project (HVIP)</u>.

Transit and Drayage lanes open now!





Open July 16!

Open Now!



Open Now!

EV Jump Start

The project must meet one of the following criteria:

- Project site will be in a <u>Disadvantaged Community</u>
 (DAC) or Low-Income Community (LIC)
- Public Transit System serving a DAC or LIC
- Public School District serving economically disadvantaged students
- Tribe or tribal serving entity
- Small business as identified in the California State Legislative Code
- Certified Minority Business Enterprise
- Non-profit organization

The project may be for public, shared, or private commercial fleet use by MDHD EVs.

Transit

- Included in the CARB Innovative Clean Transit (ICT) program's list of compliant transit agencies
- California city or county government, transportation district/transit district, or public agency
- California Native American Tribe, California Tribal Organization, or Non-Governmental Organization Serving Tribal entities
- Must show proof of HVIP vehicle purchase or HVIP voucher request by Step 3 of the EnergIIZE process

Drayage

- Fleet that performs drayage operations, according to HVIP definition
- CaaS developers serving drayage fleets
- Must show proof of HVIP vehicle purchase or HVIP voucher request by Step 3 of the EnergIIZE process



Incentive Structure

Applicant Lane	EV Fast Track	EV Public Charging	Hydrogen	EV Jump Start
Application	First Come, First Serve	Competitive	Competitive	Competitive
Incentive Structure	50-75% of Total Eligible Adjusted Project Costs	50-75% of Total Eligible Adjusted Project Costs	50-75% of Total Eligible Adjusted Project Costs	75% of Total Eligible Adjusted Project Costs
Maximum Award	\$500k-750k	\$500k-750k	\$3M-4M	\$750k



Set-Aside Lanes Incentive Structure

Drayage

Lane Characteristics	EV	Hydrogen Fueling	Mixed Fuel
Maximum Incentive Offering	75 percent of Total Eligible Adjusted Project Costs Incurred*		
Maximum Award	\$750,000	\$2,800,000	\$1,400,000

If meeting equity criteria:

Lane Characteristics	EV	Hydrogen Fueling	Mixed Fuel
Maximum Incentive Offering If Meeting Equity Criteria**	90 percent of Total Eligible Adjusted Project Costs Incurred*		
Maximum Award If Meeting Equity Criteria**	\$1,000,000	\$1,000,000 \$3,920,000	

If installing more nozzles:

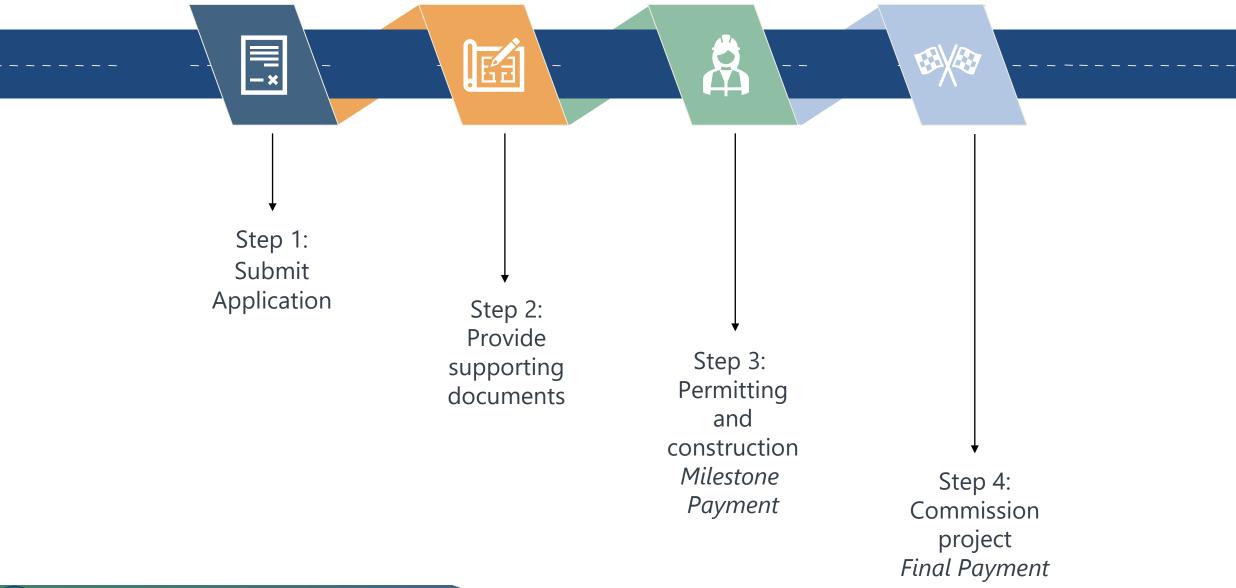
Lane Characteristics	EV	Hydrogen Fueling	Mixed Fuel	
Maximum Incentive Offering If Installing More Nozzles	90 percent of T	90 percent of Total Eligible Adjusted Project		
Maximum Award If Installing More Nozzles	\$1,000,000 if installing 10 or more nozzles	\$3,050,000 if installing 4 or more nozzles	\$1,650,000 if installing 10 or more nozzles (combined, not per fuel type)	

Transit

	EV	Hydrogen Fueling	Mixed Fuel
Maximum Incentive Offering	75 percent of Adjusted Project Costs Incurred*		
Maximum Project Cap	\$500,000	\$2,000,000	\$1,000,000

	EV	Hydrogen Fueling	Mixed Fuel
Maximum Incentive Offering If Meeting Equity Criteria*	90 percent of Adjusted Project Costs Incurred*		
Maximum Project Cap If Meeting Equity Criteria**	\$750,000	\$2,800,000	\$1,400,000

EnergIIZE Project Steps







Resources

- For interested applicants: https://calstart3.my.site.com/apply/s/ (Application Portal)
- For vendors & installers:

Apply to be an approved Project Partner to apply and/or install infrastructure for fleets at https://www.energiize.org/partners

Find more stackable funding opportunities at https://fundingfindertool.org/

Contact Us



877-ENR-GIZE 877-367-4493









SOUTHERN CALIFORNIA EDISON®

Common Questions

When stacking EnergIIZE and CRT, should I contact SCE or EnergIIZE first?





SOUTHERN CALIFORNIA EDISON®

Common Questions

When stacking EnergIIZE and CRT, how does reimbursement work?





SOUTHERN CALIFORNIA EDISON®

Common Questions

What can applicants do to be prepared before their first conversation with SCE?





SOUTHERN CALIFORNIA EDISON®

Common Questions

What are common reasons for project delays?





Q&A

Please submit your questions using the Q&A function!